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Solid Wood Block

This invention relates to a design of profiles and assemblies of a block that is made of solid wood or pressboard that is used in construction on the same principle and the same method as the traditional masonry block during the construction of a solid wall by staggered stacking.

Consisting of a rectangular parallelepipedic block of wood with variable thicknesses and heights up to 20 centimeters and all smaller dimensions and a length that does not exceed sixty centimeters and all smaller dimensions, whose ratio of the length to the width does not exceed one third.

Its assembly process is an ordinary tongue and groove joint with double flanges (1) on its upper face and double grooves (2) on its lower face.

Longitudinal axis (3) of the flanges on the upper face and longitudinal axis (3) of the grooves on the lower face are facing each other two by two on same vertical axis (4).

The profile of the flanges and grooves is in a semi-circle whose cumulative length of chords or diameters per face cannot exceed one third of the width of the block, and the area of beveled edge (5) is subtracted from this width when the latter is profiled on the upper edge of the block.

The diameter or chord of the groove is ten percent larger than the diameter of the flange, and the distance between outside edge (6) of the groove and adjacent wall facing (7) cannot be less than one-tenth of the width calculated on the upper face of the block.

The assembly of the block at its two ends is symmetrical and, by using splined tongue and groove joints (8), parallel to the wall facings and perpendicular to the upper and lower faces.

According to the size of the block, several splined tongue and groove joints can be produced, whereby the scraped area that is caused by the latter should not exceed one-third of the surface area of its square section and the groove depth that should not exceed the distance between the wall facing and first line (9) of the groove.

Two countersunk holes (10) that are perpendicular to the upper face of the block cross it up to its lower face; they are located on the same axis (11) that is parallel to the flanges and between the latter.

For one of the holes, from the leveling course the distance is equal to a half-width of a block, and for the other hole it is equal to three-quarters of its length.

The group of these two holes is equal in number to the number of grooves of splined tongue and groove joints that are in the same longitudinal axis (11) and are symmetrical to the two ends of the block.

The diameter of these holes that should not exceed the side of the width of the splined tongue and groove joint and allows the passage of screws or metal tips of equal diameter.

The depth of screwing or nailing of the upper block into the lower block is equal to at least one third of the thickness of the latter.

The installation of spline (12) whose length, thickness and width are less than five percent when it is positioned between two blocks placed end to end.

The grinding of the flanges is carried out only on the portion covered by assembly (13) when block walls are joined at a right angle and with conventional clamping.

The nailing or screwing of the upper block to the lower block on this assembly portion is carried out by the existing hole or holes.

Consisting of a rectangular parallelepipedic block made of wood of variable thicknesses and heights up to twenty centimeters and all smaller dimensions and a length that does not exceed sixty centimeters and all smaller dimensions, whose ratio of length to width does not exceed one third.

Its assembly process is an ordinary tongue and groove joint with double flanges (1) on its upper face and double grooves (2) on its lower face.

Longitudinal axis (3) of the flanges on the upper face and longitudinal axis (3) of the grooves on the lower face are facing each other two by two on same vertical axis (4).

The profile of the flanges and grooves is in a semi-circle whose cumulative length of chords or diameters per face cannot exceed one third of the width of the block and the area of beveled edge (5) is subtracted from this width when the latter is profiled on the upper edge of the block.

The diameter or chord of the groove is ten percent larger than the diameter of the flange, and the distance between outside edge (6) of the groove and adjacent wall facing (7) cannot be less than one-tenth of the width calculated on the upper face of the block.

The assembly of the block at its two ends is symmetrical and, by using splined tongue and groove joints (8), parallel to the wall facings and perpendicular to the upper and lower faces.

According to the size of the block, several splined tongue and groove joints can be produced, whereby the scraped area that is caused by the latter should not exceed one-third of the surface area of its square section and the groove depth that should not exceed the distance between the wall facing and first line (9) of the groove.

Two countersunk holes (10) that are perpendicular to the upper face of the block cross it up to its lower face; they are located on the same axis (11) that is parallel to the flanges and between the latter.

For one of the holes, from the leveling course the distance is equal to a half-width of a block, and for the other hole it is equal to three-quarters of its length.

The group of these two holes is equal in number to the number of grooves of splined tongue and groove joints that are in the same longitudinal axis (11) and are symmetrical to the two ends of the block.

The diameter of these holes that should not exceed the side of the width of the splined tongue and groove joints and allows the passage of screws or metal tips of equal diameter.

The depth of screwing or nailing of the upper block into the lower block is equal to at least one third of the thickness of the latter.

The installation of spline (12) whose length, thickness and width are less than five percent when it is positioned between two blocks placed end to end.

The grinding of the flanges is carried out only on the portion covered by assembly (13) when block walls are joined at a right angle and with conventional clamping.

The nailing or screwing of the upper block to the lower block on this assembly portion is carried out by the existing hole or holes.

REFERENCES

Fig. 1 Section

Fig. 2 Elevation

Fig. 3 Side view

1. Flange
2. Groove
3. Longitudinal axis
4. Vertical axis
5. Beveled edge
6. Outside edge
7. Wall facing
8. Tongue and groove joint
9. Line
10. Hole
11. Parallel axis
12. Spline
13. Assembly